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Political-military gaming has long been used to study international confrontations and conflicts, to provide a means of interchange for groups of scholars and operators interested in the interplay of political and military factors in area confrontations, and to educate and train people who may actually become involved in dealing with such confrontations. The basic structure and procedures of this type of gaming are subject to considerable variation. This Note attempts to describe these structures and processes, and is designed as a primer on the subject.

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A RAND NOTE

ON THE ADAPTING OF POLITICAL-MILITARY GAMES FOR VARIOUS PURPOSES

William M. Jones

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PREFACE

Political-military gaming has long been used as a procedure for the study of international confrontations and conflicts, for the professional socialization of groups of scholars and operators interested in the interplay of political and military factors in area confrontations, and for the education and training of people who may--in actuality--subsequently become involved in dealing with such confrontations.

The basic structure and procedures of this type of gaming are subject to considerable variation. In fact, the variable natures of the confrontations or conflicts that might be addressed and the differing objectives that inspired the use of the game make it appropriate to alter the basic structure and procedures. These variabilities also make it difficult to describe the appropriate procedures and structures in the abstract, in the absence of a specified crisis situation and game objective. Nevertheless, this Note attempts to describe such structures and processes.

The Note was prepared at Rand as part of a "Middle East War Gaming Exercise" for Project AIR FORCE with joint support from the U.S. Army. It is addressed to those people and organizations who might wish to explore the game format for their own purposes, as well as to people and organizations that have had little or no prior experience with this type of gaming. It is designed to assist them in initiating a novel form of gaming and is therefore intentionally offered as a primer on the subject. Experienced gamers are likely to find it to be rudimentary, and novice gamers are likely to find it of diminishing use as they acquire experience.

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SUMMARY

Political-military games are a form of free-form games. They are used to explore potentially important political and military problems that might arise in possible future international conflicts and confrontations. Such game applications can contribute to strategic planning and studies and to the education of officials who might--in the future--have to manage national military forces and other national organizations and instruments in such confrontations and conflicts. This Note describes the alternative game structures and procedures that may be used. It is addressed to those people and organizations that may be considering the use of political-military games for their own study purposes.

In a political-military game, participants are assigned the roles of the important national-level decisionmakers of the major opposed nations in a posited confrontation or conflict situation. They are required to assess the situation they are presented and direct the actions of the subordinate forces and other instrumentalities that would be available to the decisionmakers they are simulating. A game control group recurrently assesses the results of the interactions among the moves of the role-playing teams (and the consequences of moves made by nations not being simulated by any playing teams) and projects the new situations so produced. Such a new situation is presented to the playing teams to initiate their subsequent moves. The objective of the typical military game is to expose and explore problems produced by the interactions of antagonists whose objectives may not be clearly perceived by their opponents, interaction problems that are difficult to identify by other study methods.

The typical political-military game involves the operations of two role-playing teams and a control group. The playing teams play the role of the leaders of the major antagonists. The playing teams are typically led through three move sessions during which they have to deal with the developing confrontation situation. The move scheduling is such that both playing teams simultaneously face the recurrent problems,

with imperfect knowledge of the nature of the problems being faced by their opponents and few certain indications of their objectives. This form of game is best used to explore situations in which the interaction of military (and paramilitary) forces is the dominant issue. The simultaneous move schedule practically precludes the teams' use of negotiations and messages to influence their opponents' decisions.

There are a number of variations of game organization and scheduling that may be used. Each variant corrects one or more of the limitations of the basic game but usually at the expense of generating other limitations and problems. The form of the game to be used is dependent on the nature of the interaction problems to be explored.

- One variant uses the typical game structure but alternates the move periods of the role-playing teams.
- Another variant changes the move sequence from simultaneous to sequential when interteam negotiations are indicated.
- It is possible to have the "game clock" moving during team move periods but this variant is normally not recommended.
- The typical game can be organized with more than two role-playing teams of actors/antagonists. Four such role-playing teams are the practical upper limit.
- It is possible to conduct a single-move game if a single-move decision promises an adequate coverage of the problems of interest required to conduct it.
- It is possible to organize and play a game in which the playing teams assume the role of a senior advisory body to the national leaders. In this variant, the team moves take the form of recommendations to their leaders.

The variant appropriate for adoption and use is clearly dependent on the nature of the problems to be explored and the objectives to be served. No matter which variant is adopted, there are procedural desiderata that experience indicates to be important. The participants on the playing team must be clearly informed of the role they are to play, of the nature of the moves they are to make, and of the basic procedures and schedules of the game. The initiating scenario should

make it clear to the players just what organizations and instrumentalities they have under their (game) control and also inform them of the conditions and (attributed) past activities of those assets (as well as those enemy assets they are entitled to know about). The initiating situation (and the recurrent game projections of the developing situation) should be sufficiently plausible to the role-playing teams for them to accept and address the problems presented. The initiating situation should be formulated so as to set the stage for the presentation of additional (relevant) problems in subsequent moves. In making its situation projections during the game, the control group should attempt to adapt their assessments of move interactions so as to expose such follow-on problems without exceeding the "plausibility acceptance limits" of the playing teams.

During the play of the game, only the control group has an overview of the (simulated) interactions and only the control group is aware of the reasons why certain assessments were made. The members of the playing teams have a view of events that is biased toward the points of view of the decisionmakers they are simulating. Intermediate outcomes of interactions are viewed as the products of (sometimes, unkind) "fate." It is imperative that a post-game group session be conducted at which control attempts to convey the overview and explain its rationale for the assessments it has made.

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GLOSSARY

Control group: The group of participants whose functions are to organize and manage the game.

Critique: The post-game meeting of all game participants in which an initial review and analysis is conducted.

Game director: The person responsible for organizing the structural, procedural, and substantive features of the game and managing the game process.

Game situation: A simulated situation that develops in the play of the game.

Game time: The simulated time (hour and date) that is being dealt with in the game itself or the simulated elapsed time interval between one moment in game time and a later assumed time.

Initiating scenario: The game situation that is to be faced by the playing teams at the start of the game.

Playing team: A group of participants whose function in the game is to simulate the decisionmaking of a designated real-life decisionmaking group.

Real life: A term used to identify a feature of the actual situation existing in the world at the time of the game or that might be expected to exist if the situation being simulated in the game were to actually occur in the future.

Real time: The actual time (hour and date) when the game is to be (or is being) conducted or the elapsed time of the game.

I. INTRODUCTION

The essence of a political-military game involves casting groups of people into the roles of significant national-level decisionmakers of two confronting nations, typically, a RED and a BLUE team, where RED represents a potential real-life enemy and BLUE represents one's own nation. They are each presented with a description of the situation they are to face, descriptions that approximate the scope and degree of knowledge of the situation that their real-life counterparts would encounter if such a situation actually occurred. Each role-playing team must address the problems presented and decide on and direct the taking of such actions as they believe to be appropriate to and realistic for the decisionmakers they are simulating. A game control group takes the various playing team moves and projects a new, resultant situation, based in part on the actions the playing teams have directed. This new situation is then presented to the playing teams, and they repeat the process of assessing the situation and deciding on a new move. The game is moved through several such cycles, with the playing teams presented with developing problems resulting (in part) from their prior actions. Thus, the players are led to assess the developing situations from the points of view of the real-life decisionmakers they are simulating and to deal with problems--at every game juncture--with a full recognition that they will later have to deal with the results of their recurrent decisions. The insights produced by this role playing, the need to look ahead to possible future problems, and the post-game overview of the interactions produced represent the major educational effects of the game.

This type of game is sometimes termed "Crisis Gaming" in recognition of the fact that the posited international confrontations and conflicts that are addressed represent a crisis situation. It is also sometimes referred to as "Seminar Gaming," "Open-Ended Gaming" or "Free-Form Gaming." The "Seminar Gaming" title comes from the typical operations of the playing teams as they address the problem situations presented. Typically the move decisions arrived at by the teams are

worked out in an open and general team discussion that duplicates the debates that are normal in a seminar. In "Open-Ended Gaming," games do not progress to a definite "end of confrontation/combat" with readily identifiable "winners" and "losers." In "Free-Form Games," the teams are--typically--free to address the problems presented in any way they see fit. All of these titles are appropriate and, considered together, are suggestively descriptive of this particular type of game.

The instruments that a playing team may use in directing game moves are--typically--the military forces of the nation being simulated, paramilitary (and other covert or special-purpose) organizations that might be under their control, the nation's foreign service organization, the nation's intelligence (and counterintelligence) organizations and such use of the news media for public pronouncements as they deem appropriate. A role-playing team may direct the activities of any or all of the instruments but it cannot specify the degree of success that the instrument will have in making the directed move. The control group in its intermove projections of the developing situation makes such "success or failure" assessments. Thus a secondary educational effect of the game is to introduce the players to the problems of decisionmaking in situations in which the future consequences of its decisions are inherently uncertain.

A not unusual development during the course of a political-military game is the development by the opposed role-playing teams of divergent appreciations of the developing situation and equally divergent assessments of their opponent's objectives. Such divergencies are natural since the teams--typically--become so wrapped up in their own problems and objectives that it colors their views of the overall situation. The post-game critique (a general discussion and game review session) is directed toward exposing such divergencies. The educational effect here is to encourage the players (in post-game dealings with similar real confrontation problems) to make conscious efforts to look at the situation through their opponent's eyes as a part of their situation assessment operations.

These are phenomena and effects common to all political-military games, no matter how they are structured and conducted. Variants of game procedures and structures can be adopted to foster and

emphasize different effects. The remainder of this Note describes which structural and procedural variants are available and how each can contribute to different effects. No attempt is made to grade one variant against others or to recommend one over another. That is the decision of the game developer who should judge what is desired from the game he is developing.

II. CONDUCT OF THE GAME

The primary goal of this Note is to explore alternative game organizations and schedules. There are, however, some basic rules for the conduct of such games no matter what organization and schedule is used.

The game, any game of the sort of interest here, entails the use of one or more teams of human players; teams that play the roles of important decisionmaking bodies. The gaming process is started by presenting to the playing teams a description of a postulated situation in which the decisionmaking bodies they represent would have serious decision problems. The teams are required to address these problems and specify action decisions. The game may progress through several decision move periods with the teams being led progressively to address decision problems that their prior decisions (and the interactions among team decisions) have produced. The game is terminated by a joint meeting--a critique in which the decisions and interactions are discussed and analyzed in terms of their likely relevance to real-world problems and possible reactions.

The role-playing teams have two closely related responsibilities. They must address the problem presented with a serious attempt to simulate the likely reactions of the real decisionmaking bodies whose role they are playing. They must consciously attempt to ignore or circumvent the inevitable artificialities of the game and game process. The playing teams are (and should recognize that they are) parts of a study organization dealing with a serious problem. Any tendency to address the problems as a trivial game in which interteam competition and desire to "win" dominate their decision processes is an irresponsible waste of their colleagues' time and counterproductive to the fundamental study purposes of the game.

The game is managed by a control group operating under the game director. The control group at every game juncture is responsible for providing the playing teams with the information about the situation they need for their decisionmaking. They also must play the roles of

decisionmaking bodies (nations and organizations) that are not being simulated by playing teams. The control group makes the intermediate outcome assessments between each playing team decision period--assessments of the likely results of the interactions of team decisions--and produce the subsequent problems that the teams are to face next. The control group is also responsible for maintaining a record of the game.

The game director is responsible for leading the control group in the performance of its several functions. He also bears several substantive responsibilities. He must ensure that the roles selected for the playing teams are the important ones in the decision processes and interactions to be explored. He must ensure that the game initiating scenario presents game problems to the players that are relevant to real problems of interest. During the play of the game he is responsible for presenting new problem situations of similar relevance. He leads the post-game initial analysis and conducts the post-game critique in which the team decisions, actions, and interactions are reviewed and analyzed in terms of their relevance to real-life problems.

III. A BASIC GAME STRUCTURE AND GAME PROCEDURE

The following game structure and procedures serve as a basis for discussing applications and for allowing subsequent excursions if different applications and objectives are desired. The expository format for possible variations in structure and procedures is given in Fig. 1. The subsequent exploration of possible variants will follow this expository format.

The basic political-military game structure and procedure is entitled The Two-Team, Simultaneous-Move Game. This is the simplest form of political-military game and the one most often used. It is shown in summary form in Fig. 2. The basic game organization is two playing teams (RED and BLUE) plus a control group. The game move schedule has both playing teams addressing the game situation simultaneously (real time and game time). Playing team move periods are usually three or four hours (real time), during which game time "stands still." The control group move periods follow each team move periods.

Number of playing teams	One	Two	Three	Four
Role of playing teams	National leaders	Top-level advisors		
Move schedule	Sequential	Simultaneous	Hybrid	
Game time advance	Between moves	During moves	Hybrid	
Number of moves	One	Two	Three	Four or more

Fig. 1 — Variations in game organization and procedures

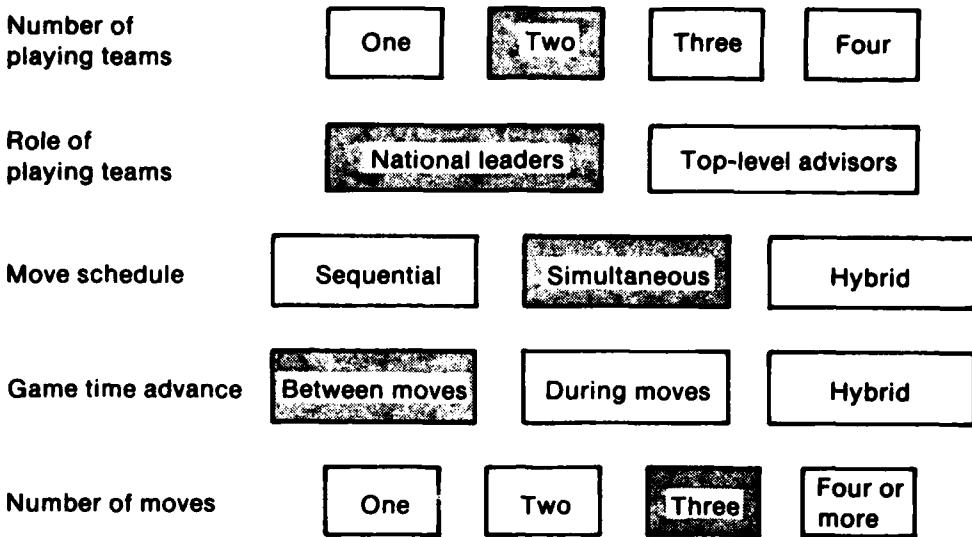


Fig. 2 — The Two-Team, Simultaneous-Move Game

During its move period the control group advances game time and develops a projection of the game situation for the playing teams to address in their next game move period. Control group game advance periods usually take three to four hours of real time. Practical considerations of player time, resource availability, etc., make three team moves the usual schedule. The post-game critique is usually scheduled for the day following the completion of game play and takes about three hours. Thus the basic game thus takes some three and a half days of real time.

This type of game is best applied to the *exploration* of (posited) international confrontations and conflict situations in which only two nations are major actors and the dominant problems entail issues of military force posturing and commitment, or the *education* of playing team members into the issues involved in such confrontations and problems. The control group simulation of a major national actor is never as insightful as its simulation by a playing team. The control group must manipulate the actions of otherwise unplayed nations to advance the game problem situations. This makes it difficult for control to realistically play a major actor.

Simultaneous moves by the playing teams (with game time standing still) essentially bars the playing teams from effectively negotiating their differences, because negotiations constitute a highly interactive process carried on over the passage of real time.

IV. VARIATIONS ON THE BASIC STRUCTURE

There are a number of variations in game organization and game procedures that can be used to meet different objectives. One is The Two-Team, Sequential-Move Game (shown in Fig. 3). This variant is essentially identical in organization to The Two-Team, Simultaneous-Move Game. The basic difference is that the RED and BLUE teams take turns (in real time) in making their moves (with the control group advancing game time and developing new situations following each move by a playing team).

This variant may be adopted in dealing with confrontational situations in which communication between the two nations being simulated is an important issue. The use of sequential moves (with advances of game time between moves) permits the RED team to attempt to influence subsequent BLUE team move decisions (and vice versa) by including a message to their opponent team (or a simulated public pronouncement) as a part of their move decision.

Number of playing teams	One	Two	Three	Four
Role of playing teams	National leaders		Top-level advisors	
Move schedule	Sequential	Simultaneous	Hybrid	
Game time advance	Between moves	During moves	Hybrid	
Number of moves	One	Two	Three	Four or more

Fig. 3 — The Two-Team, Sequential-Move Game

This variant has the comparative disadvantage of taking longer in real time and requiring more team moves to cover the same elapsed game time as the Simultaneous Move variant. In addition, since the opportunity exists for the RED and BLUE teams to attempt to affect their opponent's move decisions by verbal communications, they may focus on this mode of play to the exclusion of serious consideration of military force moves and issues.

To discourage overemphasis on attempts to influence opponents by verbal communications, one might consider a Two-Team, Hybrid Move schedule variant (shown in Fig. 4).

In this variant, the basic move schedule is as in the Simultaneous Move game. If, however, during their simultaneous move decision periods RED or BLUE wishes to negotiate with its opponent (and its opponent agrees and the game director permits), the teams are permitted to communicate with each other using verbal messages. This exchange of messages continues until an agreement is reached or the game director decides that for game purposes it would be best to rule that the negotiations had been overtaken by events and directs a reversion to the Simultaneous Move procedure.

Number of playing teams	One	Two	Three	Four
Role of playing teams	National leaders		Top-level advisors	
Move schedule	Sequential		Simultaneous	Hybrid
Game time advance	Between moves		During moves	Hybrid
Number of moves	One	Two	Three	Four or more

Fig. 4 — The Two Team, Hybrid Move Schedule Game

This variant has the advantage of permitting verbal interactions in simulated situations in which (in real life) verbal interactions are important. It also reduces the real time (and number of team moves) required to cover the array of game issues. It has the disadvantage of inviting the playing teams to focus on interteam negotiations at the expense of attention to military force problems.

In another variant the move scheduling is sharply altered--game time is steadily advanced (and the game situation changed appropriately) while the playing teams are engaged in move decisionmaking and, possibly, exchanging messages. See Fig. 5. It is discussed here since it is not uncommon for this kind of game operation to be considered.

The game is started when the playing teams are presented with an initiating scenario. Game time starts to elapse. The rate of passage of game time is usually proportional to the passage of real time. One hour of real time equals one day of game time, for example. The teams are allowed to move at any time. Moves may take the form of operations of the military forces a team controls and/or communications to opponents and others. The control group recurrently assesses the

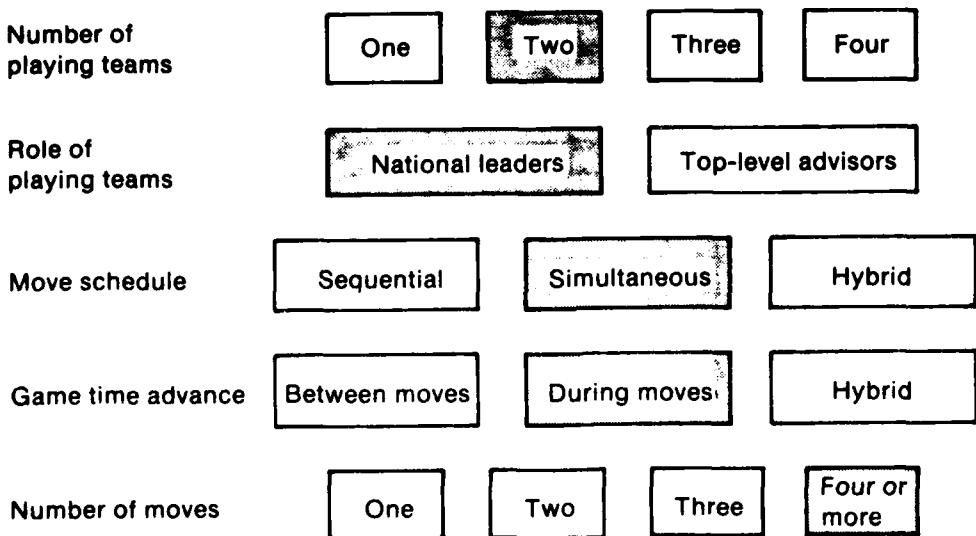


Fig. 5 — The Running Game Clock Game

consequences of the moves and develops descriptions of the situation for the subsequent use of the playing teams (while the game clock continues to run).

This form of game--at least in theory--places few constraints on the move decisionmaking of the playing teams.

The problems presented by this gaming procedure are so serious that it is not recommended except for very special and limited problem explorations. One problem is procedural. Managing such a game operation while making the move assessments and situation projections as the game clock runs exceeds the capabilities of all but the most well prepared, experienced, and trained control group. Almost inevitably, the control group will fall behind in the performance of its functions. Another problem is that the playing teams may fall behind in their running assessments of the developing situation and in the issuing of their action directives. The most serious limitation arises as a consequence of the timing problems noted above. It is difficult--if not impossible--for the game director/control group to steer the game properly into the planned, relevant problem areas. This type of game is not recommended as a problem study procedure except possibly for highly focused problems and a game organization that is very simple, using experienced and well-trained players.

Some problems and processes in the international conflict arena have more than two major, real-life actors. Such problems are candidates for game explorations using more than two playing teams. Although it is possible to game such problems with two playing teams (with the control group playing the role of the other major actors plus all the minor actors), such a game has serious deficiencies. The problem of a playing team playing the role of a major actor is to realistically deal with the situations presented by the control group. The descriptions of the situation presented are limited to what the actor is entitled to know. The intentions and some of the actions taken by other actors are denied to such a major-actor playing team. For the control group to play one or more major actors means that forbidden knowledge is inevitably present. The control group also assesses interaction outcomes. If the control group is called on to play a major

actor, it falls into the position of both directing moves and assessing the outcomes of those moves. This can make suspect the suggestive findings of the game. There are, therefore, some occasions in which the use of more than two playing teams is appropriate. The structure of a multiple team game is given in Fig. 6.

This game structural variant is best applied to posited international confrontation and conflict situations in which the three or four major actors are neither closely allied to one or more of the others and--in the situation posited by the initiating scenario--not likely to be powerfully motivated to try to negotiate close coordination or alliances. The game--almost positively--must be played with simultaneous move periods. The use of sequential moves would bring up the almost insoluble problem of assigning move turns. (Some form of hybrid move sequencing might be considered.)

The major problem with this game is in the operations of the control group. The control group in any form of game must assess the outcomes of team moves and their interactions and develop descriptions of the situation so created for the subsequent use of the playing teams. These situation descriptions must be tailored for each team, giving it

Number of playing teams	One	Two	Three	Four
Role of playing teams	National leaders	Top-level advisors		
Move schedule	Sequential	Simultaneous	Hybrid	
Game time advance	Between moves	During moves	Hybrid	
Number of moves	One	Two	Three	Four or more

Fig. 6 -- The More than Two Teams Game

all that it is entitled to know while denying it information it should not have. This is a complex task with two teams and much more complex with four. (Experience indicates that servicing more than four teams is a practical impossibility.) As a result, the control group must either rush its between-move projection operations or allow itself six (or more) real-time hours for each between-move projection. If they rush, mistakes will be made and the direction of the game into relevant problem areas can suffer. If they protract the projection periods, the total elapsed (real) time needed to conduct a game can become too long.

Another variant that may be of interest is The Single-Move Game; see Fig. 7. This variant is appropriate for the simulation of international confrontations that present a problem that is amenable to solution in one decision session. The game move procedure should probably be simultaneous (although some extension of the real time allowed for the move is possible, as is some form of hybrid game clock management to permit interteam communications). This is a relatively inexpensive form of gaming since full participation is needed for only one day. The game form lends itself conveniently to repeated games using different participants on the playing teams (if the problems of interest are well served by such multiple plays).

The problem with this form of gaming is found in the question, "Are the solutions to the decision problems presented to the teams likely to be different from the solutions they would arrive at knowing that they will have to deal with the resulting new situation?" In other words, the substantive utility of single-move games is limited to situations and problems that are amenable to once-and-for-all-time solutions. There are not many such problems in the arena of international confrontations.

Still another variant of possible interest is The Single-Team Game; see Fig. 8. The Single-Team Game is best applied to the exploration of international confrontation problems where the likely reactions of one nation are paramount, situations in which the central problem is clearly in the decision processes and actions of one major actor. (An alternative use is experiential training and education of a group by casting them in the role of national decisionmakers in a simulated developing situation.

Number of playing teams	One	Two	Three	Four
Role of playing teams	National leaders		Top-level advisors	
Move schedule	Sequential	Simultaneous	Hybrid	
Game time advance	Between moves	During moves	Hybrid	
Number of moves	One	Two	Three	Four or more

Fig. 7 — The Single-Move Game

Number of playing teams	One	Two	Three	Four
Role of playing teams	National leaders		Top-level advisors	
Move schedule	Sequential	Simultaneous	Hybrid	
Game time advance	Between moves	During moves	Hybrid	
Number of moves	One	Two	Three	Four or more

Fig. 8 — The Single Playing Team Game

As is ever the case with any training and educating procedure, a high premium is placed on the assurance that the lessons to be taught are both salient and valid.)

The Single-Team Game has the one team playing the role of the sole major actor in an international confrontation. The control group, in addition to its other normal control roles, plays the roles of all other decisionmaking actors.

This variant is attractive in that, in terms of manpower requirements and support operations, it is a relatively economical form of gaming.

The problems and limitations of this variant are twofold. Not many interesting international confrontation situations that one might posit have only one major actor. The option of casting the control group into the role of an opposed major actor brings up the other problem. This form of game must be conducted with great care to avoid having the single playing team come to feel completely manipulated. Recognizing that the control group is not only making moves for its major and minor opponents (and allies) but also determining the intermediate results of moves and interactions, the playing team may grow to feel that it is relatively helpless. The relevance to real life of the game issues faced and the team's solutions become suspect if this attitude develops.

A final variant to be sketched here is the playing team(s) in the Senior Advisor Role(s) Game. This is shown in Fig. 9 using the basic Two-Team, Simultaneous-Move structure. (Playing teams may be cast in the Senior Advisor role in most of the other variant forms. Of course, it would be pointless to do so in The Single-Move Game. And to do so in The Single-Team Game would compound the perceived manipulation-by-control problem.)

In this variant, the move decisions of the playing teams take the form of recommendations to their respective national leaderships. The control group (in addition to its other usual functions) plays the role of those leaderships and may accept the recommendations, accept some of the recommendations and deny (or modify) others, or direct a set of move operations that were not recommended by the playing team.

This variant may be considered under three different conditions. If the primary purpose of the exercise is experiential training and education of the playing groups, the control group may use its final move authority to steer the game into problem areas of training

Number of playing teams	One	Two	Three	Four
Role of playing teams	National leaders	Top-level advisors		
Move schedule	Sequential	Simultaneous	Hybrid	
Game time advance	Between moves	During moves	Hybrid	
Number of moves	One	Two	Three	Four or more

Fig. 9 — Playing team(s) in the Senior Advisor Role(s) Game

interest. If the purpose of the game is to support the development and assessment of strategies, this variant can be used to ensure that the situations and responses developed during the game are relevant. Or, this variant is useful if the members of the playing teams are ill equipped (or otherwise too inhibited) to adequately play the role of national leaders.

The major problem with this variant is the previously noted possibility of leading the playing teams to feel that they are being hopelessly over-controlled. In the play of this variant it is strongly advised that the control group routinely accept any recommendations submitted by the teams as permitted by the objectives of the exercise.

V. OBSERVATIONS ON POLITICAL-MILITARY GAMING

There are a number of guiding principles, procedural desiderata, and lacunae that have implicitly informed the above exposition of game variants. It is probably useful to now make some of them explicit.

The form of the most appropriate game variant is highly dependent on the purposes and objectives of the exercise. The designer, sponsor, and director of a political-military game must--from the outset and during the play--be quite clear as to the overall purpose and objectives. The purposes and objectives not only must inform the game organization but also the selection of people to participate in various roles, the nature of the problems presented in the initiating scenario, and the problems targeted for presentation by control team situation projections. Gaming--in general--is too expensive in the time and effort demanded of the participants to be engaged in without extensive pre-game preparations and thought.

The appropriate objectives and purposes of a political-military game is to explore or demonstrate important real-life problems and likely important interactions. This form of gaming is not appropriate for "solving" detailed military operational problems or for "predicting" the outcomes of combat between two military forces. The play of a game may reveal that such problems exist and lead to post-game attempts at their solutions. This alone can make game exercises useful. Participation in a game can sensitize the participants to the important issues in a possible future real-life confrontation. A game can provide participants with a shared (simulated) experience that--if they are later called on to deal with a similiar real-life situation--gives them an analogue to support their (real-life) debates and coordinating communications. This too is useful. None of these utilities, however, is likely if the game is not carefully (and thoughtfully) prepared and conducted.

There are some "rules" for the preparation and conduct of political-military games that experience has shown lead toward the attainment of the game objectives. These are tendered here.

1. The team participants must be clearly informed of the role their team is to adopt so they know what is expected of them: the real-life schedule they must meet, the (simulated) organizations and instruments of nationally controlled operations that they can use, and the form and scope of the action decisions (moves) that they must recurrently make and report. (For example, it is useful to give the playing teams a checklist form to guide their preparations of game moves; a checklist that clearly indicates a need for military moves, paramilitary moves, international political moves, public pronouncements, etc. Such checklists should clearly indicate the need to specify an objective for the directed move and any timing factors that apply to or constrain the move.)
2. The initiating scenario (and accompanying team materials) must inform the several playing teams of the current and past activities and conditions of the organizational "tools" they are to control in the game.
3. The initiating scenario (and accompanying team materials) must inform the several teams of those current and past activities and conditions of the organizational instruments controlled by their opponent teams (and by the control group) as their real-life counterparts would likely know in a comparable real-life situation.
4. The situation (and the imputed history of national actions leading to the situation) in the initiating scenario must be sufficiently plausible to the playing team participants for them to accept and address the decision problems presented. This means that the initiating scenario must not depart too far from common knowledge (consensus plausibility). An initiating scenario that presents a situation for which there is a known, real-life contingency response plan is rarely appropriate (although it practically ensures consensus of plausibility) since it presents the playing team with a simple go-no go decision. An exception to this is where the situation can be depicted with a plausible configuration of national or

international postures and conditions that call into question the likely appropriateness of the real-life contingency plan.

5. The initiating scenario (except in the case of a planned one-move game) should set the stage for the development and presentation (by the control group) of follow-on, relevant problems in the second and later game moves. This is a difficult requirement to satisfy. The playing teams in the game-to-be will naturally be searching for moves that minimize the possibility of subsequent serious problems for themselves. The best the scenario developer can do is to "walk through" a step-by-step "game of his own" before exposing the scenario to playing teams of the game-to-be.
6. During the play of the game, the control team must make serious attempts to keep the several playing teams aware of any changes to the activities and conditions of the organizational tools they control as well as those controlled by others.
7. After the first (and subsequent) moves of the playing teams, the control team must develop and present the new situation at a specified later game time. These projections are based on the actions directed by the several playing teams, the actions and postures of nations played by the control team, the assessed results of the interactions of various forces, and--possibly--the results of "fate." (The perceptive reader will have noticed that nowhere above have there been any instructions to the control team as to how to make such assessments of interactions.) The control group must balance between the requirements imposed by two of its roles. On the one hand, the group is responsible for steering the game so as to raise relevant (and real-life) problems. Assessments of military interactions can be tailored to meet this requirement. On the other hand, the assessments and resulting new game situation should be plausible enough to the playing teams for them to accept and address with a feeling of plausible realism. The best way to handle this recurrent dilemma is to rely on knowledgeable control team members to make the initial interaction assessments and subsequently modify this initial

assessment (within the bounds of likely team acceptance) to direct the game toward relevant future problems. (The control group, in its playing those nations not assigned to playing teams, can also--within the bounds of reasonable possibility, if not probability--impute actions to those nations that evoke meaningful problems for the playing teams.)¹

8. The director of a game has a special obligation to the people on the playing teams. They are cast in the role of one of the major antagonists in the situation being played. Their view of the problems developed and the insights they develop are shaped by the role they play. The game designer and conductor--on the other hand--are in a position to observe interactions from an overview position (and insights into interactions are often the most important product of a game). The game conductor is in a much better position to assess the impacts of game structure and procedures on the course of game developments and thus best qualified to separate results produced by game phenomena from results that may have important real-life relevance. The game conductor owes to the players a post-game report on the overview that he acquired and his assessments of the insights gained.

¹This need to balance "accurate" projections of military interactions with the need to develop new problem situations for the playing teams is important to remember in analyzing the products of a political-military game. Actually, any assessment of outcomes is likely to be questionable. Even (perhaps one should say, especially) the use of complex computer assessment programs produce questionable results. (Complex computer programs typically embody large numbers of untested and untestable assumptions. Complex computer programs may impute more certainty to some inputs and subordinate interaction calculations than is actually warranted. Computer assessment programs, no matter how complex, typically omit dealing with some phenomena, such as troop morale and simple luck, that--in real-life--are known to be important contributors to outcomes.) There is no assurance that any particular interaction assessment in a game made by extensive calculation is any more or less reliable than one made by a thoughtful and experienced control team member. Recognition of the uncertainties inherent in military interaction assessments is important to remember when analyzing the results of a game.